NEW ENGLAND FARMER,

AND HORTICULTURAL REGISTER.

PUBLISHED BY JOSEPH BRECK & CO., NO. 52 NORTH MARKET STREET, (Agricultural Warehouse.)

VOL. XVII.] BOSTON, WEDNESDAY EVENING, FEBRUARY 6, 1839. [NO. 31.

AGRICULTURAL.

(From the Journal of the Franklin Institute.)

On the part which the soil acts in the process of vegetation. Memoir read at the Academy of Sciences, by J. Pelletier.

[Translated from the Journal de Pharmacie, for the Journal of the Franklin Institute, by J. Griscom.]

The ground is the support and nurse of plants; in its bosom, by means of roots, they seek for and find a portion of their nourishment. But to this truth, so simple and obvious, are attached questions of a complicated nature, and of the highest interest to physiology and agriculture. With one, among others, I have been particularly arrested, and it has been the object of my meditations. Before I ente. upon it, permit me to bring into view some facts which appear to be necessary to the discussion of it.

The earth is not an elementary substance. Its exterior bed, the residence of plants, is formed of various metallic oxides, silica, alumina, lime, to which are often joined magnesia and the oxide of iron. It contains, moreover, the detritus of organic matters which had before possessed life and existence. Thus constituted, and under the influence of air, water and imponderable fluids, the earth is eminently fit for the development of germs deposited in its bosom, and to the growth of the vegetables which flourish upon it.

The necessity of the presence of organic matter, to constitute a soil, endowed in the highest degree with vegetative force, cannot be considered doubtful. In vain did Tull, in 1773, attempt to maintain that distinct earthy particles formed the sole nourishment of the plant. This theory was overturned by the positive experiments of Duhamel who had at first embraced it. Nevertheless, if it is certain that the presence of organic matter is a condition of fertility, we may still ask whether it is so *essential* a condition—such a *sine qua non*,—that a plant cannot vegetate in a soil totally deprived of organic matter, particularly if other circumstances, such as the presence of water and carbonic acid, be united with it.

Numerous experiments have been made to resolve this question. Many of them are contradictory. The greater portion, from the high interest which they involve, ought to be discussed and repeated with care. But another question not less important, and which I think ought to be first ascertained, is this: *What influence have soils themselves in the act of vegetation?* To this question I at present confine myself.

A vegetable soil, in its normal state, must be considered a mixture of various earths, that is, of metallic oxides.

Every soil devoted to agriculture, is in general, says Chaptal, formed of a mixture of silica, lime and alumina, and in support of this assertion he cites various analyses.*

Davy confirms this statement in his Agricultural Chemistry, and, in fact, not a single instance of a fertile soil has occurred, which consisted of only one earth, or even of two, such as lime and silex, silex and alumina, alumina and lime.

In another passage in his *Chimie Agricole*, Chaptal expresses himself thus:

"A mixture of lime, silex and alumina forms the basis of a good soil; but that it may possess all the desirable qualities of good land, these ingredients must exist in certain proportions, which analysis of the best soil can only establish.

If we consult the analysis of the most fertile soils, we find that fertility diminishes in proportion to the predominance of either of these principal earths, and that it becomes almost null when the mixture has the properties of only one of them."

Complexity of composition is therefore, in general, a condition of fertility in a vegetable soil. The loose earth which we find in valleys arising from the decomposition of primitive rocks, makes generally an excellent soil. Now we know that granite, composed of quartz, feldspar and mica, and frequently amphibole, must yield by its composition, a soil containing silica, lime, alumina and a little magnesia and sometimes potash. Soils originating, on the contrary, from the decomposition of more simple rocks, siliceous limestone, for example, are lighter, and suitable only for a limited number of plants; they require, says Chaptal, to be enriched, and are valuable only in moist climates. Land originating in the decomposition of trap, basalt and other rocks of complicated elements, possesses, on the contrary, great natural fertility.

"Rivers," he further adds, "receive in their courses other streams whose mud is mingled with its own, and it often happens that the united sediment of two rivers possesses greater fertility than that of either separately."

This then appears to be an established fact, that a soil (independently of organic matter) is the more fertile as its composition is more heterogeneous.

If we seek for an explanation of this fact, we find in authors only vague opinions and doubts; the greater number merely state the facts without attempting an explanation.

Agricultural chemists, who indulge more in theory, appear to regard the cause of fertility as dependent on the physical character of the soil rather than on its chemical constitution. Thus Davy having observed that different soils attract moisture with different degrees of energy, and having discovered, as he believed, that the most hygrometic soils were the most fertile, he ascribes their superior fertility chiefly to this property. But Davy has not proved that the hygrometric force of a soil bears any given relation to its composition.

If this attraction of moisture were the principal cause of fertility (abating the influence of manures) we perceive no necessity for the combination of the three earths in the constitution of a soil of the first quality. Indeed a certain quantity of alumina in a soil otherwise entirely siliceous, or entirely calcareous, a certain proportion between the adhesive and the loose or sandy portions, would be sufficient to confer this hygroscopic quality, and of course the fertility of the soil. But we have nothing to confirm this supposition.

The hygroscopic quality of a ternary soil may then be considered as an *element* of fertility, but only a secondary element, subordinate to its chemical composition.

The property of becoming more or less heated by the rays of the sun, which appeared to Davy to hold a relation to the fertility of different soils, appears to me to be also a secondary cause. In the cases referred to by him there was a mixture of black mould, and he did not sufficiently consider its fertilizing action as a manure upon the soil.

To me, it appears evident, that the mixture of the various earths which compose a soil, acts upon vegetation and determines its fertility *by an electro-chemical force*, whose action has been clearly recognized in other circumstances, but not yet brought into view in the case now under consideration. In the first place, let us observe, that it is a fact, though the truth may have escaped observers, or rather, it has not yet been brought under a formula, that the silica, alumina and lime which enter into a good vegetable soil, must not be combined with each other, but simply mixed, the lime being in the state of a carbonate. A triple silicate of lime or alumina, in which the silex, lime and alumina should be in the proportions which constitute the best arable land, could not, even if thoroughly divided, furnish a soil essentially adapted to vegetation. If, in a fertile soil, composed of a mixture of lime, alumina and silica, a combination between these three oxides should begin to take place, the ground would become cold and sterile. Now, it is certain, that in a mixture of these three ingredients, a force

---

* A fertile soil in Sweden was found by Bergman to consist of:

Coarse Silex,	30	56
Silica,	26	
Alumina,		14
Carbonate of Lime,		30
		100

A fertile soil in Middlesex gave Davy—Siliceous Sand 3-5; the remaining 2-5 consisted of

Carbonate of Lime,	28
Silica,	32
Alumina,	29

Analysis of a fertile soil in Touraine:

Sand,	49
Silica,	16
Alumina,	10
Carbonate of Lime,	25
	100

A very fertile compost, formed by Tillet consisted of clay 3-8, pulverised limestone 3-8, sand 2-8, corresponding to

Coarse Silex,	25
Silica,	21
Alumina.	16.50
Carbonate of Lime,	37.50
	100

does exist which tends combine them. The silica and alumnia are, in relation to the lime, electro-negative bodies, and in their presence the lime must acquire a contrary electricity. According as external or mechanical movements of the soil, or other foreign causes, shall bring these molecules within greater or less distances from each other, and group them in various ways, electrical piles will be established, discharges will take place, producing various tensions, and the earth will thus, if we may use the term, become animated. The electric fluid which pervades it will excite the stomata of the radical fibrils, determine the play of the organs, and the absorption of the fluids requisite to the nourishment of the plant. The radical fibrils, and the capillary roots impregnated with moisture, will become so many electrical conductors, engaged in transmitting electricity, certainly as necessary to life as light and caloric.

The merit of a theory is, that it accounts for observed facts, enables us to forsee what will take place under particular circumstances likely to happen, and indicates the considerations which it may be desirable to bring about with a view to useful results.

Let us inquire whether the theory now presented, fulfils these conditions:

Suppose a chalky soil. To improve it, we add argillaceous marl; i. e. to the lime which predominates we add silica and alumina. *To the positive element which we found alone, we add the negative elements which we found deficient.*

Will it here be said, that "chalk is so compact that the roots cannot penetrate it, or so split up that water passes through it like a riddle, and that the marling is simply designed to change this physical condition?*

But, if the object was merely to divide the chalk, in order to change its physical condition, a calcareous sand would accomplish this object, and yet it never came into the head of an agriculturist to improve his chalk by limestone, while Gordan de Saint-Memin produced a magnificent vegetation by a mixture of chalk with heath sand.

In a piece of ground belonging to Chaptal, the soil was clayey and rather barren; below was a layer of black earth. Chaptal went to work empirically, dug up the ground and mixed the two beds together. Contrary to his expectations, the sterility was increased. It was not till the fifth year that the ground acquired a common degree of fertility, that is, when all the iron had passed to the state of peroxide, and the land, black as it was, had become of a deep, bright yellow. Chaptal asks, if, in this case, the black oxide is injurious to vegetation, either by itself, or in reference to the oxygen.

In our theory, the fact explains itself, and might have been foreseen; the black oxides of iron (fer oxidule d' Hauy) is a combination of protoxide and sesquioxide of iron, a substance *indifferent* in relation to silica and alumina. Exposed to the air, the combination is destroyed, the iron passes to the state of peroxide, susceptible of union with silica and alumina. Yet, under such circumstances, it was not worth while to mingle the two beds, since five years were lost in attaining a common degree of fertility.

The theory which we have adopted, is applicable, likewise, in the happiest manner, to the operation called marling. Marl is not a simple mixture of silica and alumina with more or less of carbonate of lime. Its base is argillaceous and calcareous silicates; some mineralogists consider it even as an oryctognosical species.* It is on this account that plants cannot vegetate in marl which has been long exposed to the air, even when the silica, alumina and lime are in the proportions which form good arable land. By exposure to the air, carbonic acid *destroys the combination* which existed between the earths, and it is then, and then only, that marl will enrich the soil. In this case, if the negative element prevails, as in the case of argillaceous marls, it becomes excellent for calcareous soils; and marls called calcareous are in their turn advantageous for argillo-sandy land.

It has been remarked, that the alkaline and earthy salts, which, in a certain quantity, injure vegetation, produce a good effect when employed in small doses. Chemists and farmers have sought to explain this action of saline compounds. Some have thought that certain salts were good for plants, as some are for animals—that salts, and even earths, formed part of the food of vegetables; others, on the contrary, that they act principally as stimulants to vegetation. Without denying that earthy substances may enter into the constitution of a vegetable, to unite and give strength to the parts that are to support the organs, like phosphate of lime in the bones of quadrupeds, I may remark, that with a few exceptions, the presence of any salt is not absolutely necessary to vegetation. Thus, for example, borage and lettuce, whose extracts contain much nitre when they grow in highly manured soils, do not contain any sensible portion of it when cultivated without dung. I therefore rather incline to the opinion of physiologists, who think with M. Decandolle, that salts act as excitants or stimulants. But, what is the meaning of excitation? At the present day, science no longer admits of those vague explanations which consist of nothing but words. I understand by excitation, the eminent property of conducting electricity which salts communicate to water. It is in this manner, as it appears to me, that nitrate of potash acts, in the prodigious energy which it gives to vegetation. It is probable in this way that sulphate of lime acts; that is to say, by rendering the water a better conductor, though, in this case, the effects appear to me to be complicated, and to be worthy of direct experiment.

Thus far, for greater simplicity, we have considered lime as free, in speaking of the mixture of silica, alumina, and lime, which constitute a soil; now the lime is in the state of carbonate, but it does not, in that state cease to be an electro-positive element in relation to silica and alumina. This circumstance allows us to explain an important vegeto-physiological fact. The carbon in vegetables is produced mostly, if not entirely, by the decomposition of the carbonic acid which they absorb not only from the air, but from the ground: such is the opinion of the celebrated Decandolle. This carbonic acid, furnished by the ground, appears to enter into the vegetable at the moment of its liberation, probably dissolved in the water which the soil contains. It is absorbed by the spongioles of the radicules; it ascends with the sap, urged forward as by a *vis a tergo*. But how is this carbonic acid produced? In certain manured soils, and in superficial portions of the earth, penetrated by the air, we may conceive it to be formed by the re-action of oxygen upon the carbon of organic detritus; but at those great depths which are attained by the roots of oaks and cedars of a hundred years old, how can the carbonic acid be developed? How can the oxygen and organic matter penetrate to such depths? In our theory there is no difficulty. Carbonic acid comes from the lime, on which the silica and alumina act slowly but continuously to form silicates.*

Thus, then, at certain depths, and under influences but little understood, silica would decompose carbonate of lime, while at the surface of the earth, and under the influence of exterior agents, the silicates would be decomposed by carbonic acid produced by the re-action of the oxygen of the air on organic detritus—an admirable and providential rotation, which re-establishes the equilibrium, and incessantly tends to the rejuvenescence of nature.

The last corollary of my theory—the decomposition of silicates by exterior agents, and particularly by carbonic acid, cannot be called in question. It has been established by M. Becquerel, under circumstances in which the force of cohesion might seem to present a serious obstacle. I allude to the decomposition of the feldspar of granite, and the formation of kaolin. The analogy is here so strong that I must render the homage of my first conception to the distinguish academician I have just cited.

The fact of the decomposition of carbonate of lime by silica in the interior of the earth is equally supported by experiment and observation. And, first, if, in proceeding to the analysis of a vegetable soil, when the coarser siliceous sand has been separated by agitation and deposition, and the carbonate of lime has been removed by weak acids, we examine the finer terrene substance which has resisted the weak acids, we find that it is not alumina, as Chaptal indicates, nor silica, as is stated in various works, but that it consists principally of veritable silicates of lime, of alumina, and of oxide of iron.

Still, it may be objected that these silicates are anterior to all vegetation; that to prove their recent formation and daily production, requires direct experiments. These direct experiments are among the objects which I wish to undertake. They require much time. But to prove truth, are we to depend solely upon new experiments peculiar to him who advocates it, and are we fobidden to rely on the labors of our predecessors? Certainly not. I may therefore again refer to the interesting researches of M. Becquerel, and bring into view those mineral species which he has formed in his laboratory, and which present all the characters of their natural congeners. Neither can I omit to mention the important fact of the artificial formation of feldspar by Cagnard de Latour.

* G. Dict. d' Agriculture, article *Craie*.

* Brochant's Mineralogy.

* Animal manures may contribute to the decomposition of silicates, not only by the carbonic acid which they form by absorbing oxygen from the air, but in producing such substances as the FAT ACIDS, which have a tendency to unite with the lime and to eliminate the silica which is combined with it. M. Raspail, whose talents we are glad to acknowledge, without sharing in all his scientific opinions, appears to us to have explained the siliceous petrefactions that are found in chalk, in a very happy manner by the action of animals entombed in silicio-calcareous beds.—*Physiol. Vegetale*, t 2. p 339.

There is still another objection which may be made to the theory now presented. If, in this mixed state, the earth acts by the virtue of electro-chemical forces, why are three earths requisite to the construction of a good soil? Ought not silica and lime, or lime and alumina to be sufficient to produce, in each element of the mixture, an opposite electricity? It is easy to answer this objection also, by a reliance upon facts well known to mineralogists: it is certain that the binary silicates are more rare in nature than the ternary silicates, and that their mass in particular is less powerful: silica has therefore a greater tendency to combine with lime and alumina together than with either of these earths separately. Hence, we may perceive, that the union of the three becomes necessary to constitute a soil endowed with the highest degree of vegetative power.

If the ideas which I now submit to the academy, appear to deserve any attention, I propose, on the return of the favorable season, to renew the inquiry, and to devote myself to the labor of positive experiment—experiments, which, whatever may be their results in reference to my theory, will at least have the advantage of eliciting facts which may be friendly to agriculture, that science which is so prominently stamped with the character of utility.

We have at once, upon perusal, determined to enrich the pages of the N. E. Farmer with the subjoined Dictionary of Terms used in agriculture —fully persuaded that it will prove highly interesting and useful. It is made out with great precision and perspicuity, the very first excellence in all writings designed to be useful. It does honor to the ably conducted agricultural journal in which it appears, the Genesee Farmer, a paper, we must say, without disparagement to any other, conducted with eminent scientific and practical talent, and which we do not hesitate to recommend to every farmer in the United States as worth to him ten times its cost. H. C.

—

Abrading. This a term applied by some agricultural writers to the crumbling down of earth from the effects of frost. This process is seen most on fall ploughed lands, and is an efficient agent in ameliorating and rendering fit for cultivation heavy or clay soils.

Abrasion. The wearing away, by running water, of earths, rocks, &c. the banks, or the bottom of streams, and the result of which is the deposit of alluvium.

Absorption. The process by which plants and animals are nourished is called absorption. In most plants this office is performed by the roots, and it is through the vessels called spongioles, with which the roots are terminated, that absorption takes place. In aquatic plants, the water which affords the nourishment is absorbed with facility from every part of their surface. By causing the roots to imbibe colored liquid the general course of the sap may be traced with considerable accuracy.

Acids. Bodies that have usually a sour taste, and corrosive qualities. Some acids appear only in a fluid state, gaseous as carbonic acid, or liquid as sulphuric acid; others are crystallized, as the boraic, benzoic, &c. Of the acids, the only one that has much influence on vegetation is the carbonic.

Acclimating. Plants are endowed with a power of gradually accommodating themselves to the temperature or climate in which they are placed, unless the change is at once so great as to suspend their vital functions altogether. This process is called acclimating. Plants will bear removal better from a warm climate to one of lower temperature, than from a cold to a warm one. As instances in plants, we may mention the potato, the bean, the melon, and among fruits the peach and apricot. The cucumber affords an instance of the effect of acclimation. It is grown in the open air at Cairo and at Petersburg; at Carracas and at Quebec.

Aeration. An important change effected on the sap of plants, by the action of light. It consists in the decomposition of carbonic acid gas, which is either brought to the leaves of plants by the sap, or absorbed directly from the atmosphere. The substance of all plants is mostly carbon, and as carbon in its common state, however minutely divided, is never taken up by the sap of plants, this most essential ingredient is obtained in the form of the carbonic gas, from which the oxygen is separated by the leaves under the action of light, leaving the carbon ready for assimilation, or conversion into vegetable fibre. That this process is performed by the green substance of the leaves or stem, is evident from the fact that if a leaf is bruised or its vitality destroyed, its substance is no longer capable of decomposing carbonic gas in the light, or absorbing oxygen in the dark. The necessity of this aeration of sap for the purpose of ripening fruit, or maturing vegetation, may be seen in some fruit trees, the plum for instance, in which an excessive quantity of fruit causes a premature fall of the leaves, after which, owing to this loss of the organs of aeration, the fruit never ripens, but remains immature and worthless. The necessity of the leaves for aeration, or perfecting the juices of plants, shows the absurdity of plucking or injuring the leaves of any plant before it is ripe; topping corn, &c., under the idea of hastening maturity, or increasing the product. Attempts to improve on nature must be failures.

After-grass. The grass grown on meadows after they are mown. The usual practice among farmers is to feed this off by cattle or sheep, and in some cases so closely as to nearly destroy the roots of the grass. Unless the turf is close, and the meadow rich, it is better to not feed at all, or very lightly. For cropping after-grass, sheep are better than cattle, since, though their bite may be closer, they do not injure the roots with their feet like the former. If mown a second time for rowen, it is called

After-math. On rich meadows, or where manure can be had in abundance, for top dressing, a second mowing may be justifiable, and the grass so cut, if well cured, is much relished and eaten with avidity by ewes, calves, and other animals that are apt to become poor under ordinary management. The practice of the second mowing, however, like after feeding, is not to be recommended on the whole; experience proving that the injury grass roots always receive from mowing, is increased by the second cutting. Necessity alone can render after feeding or mowing justifiable or proper.

Agriculture. In the most extended use of this term, it is made to embrace all the operations made use of to obtain food for man, whether from the field, the orchard, or the garden. In its proper and limited sense, it means the cultivation of the soil, which is the great source of wealth. The first want of man was food; the place to obtain it was the earth; hence the origin of agriculture; and in proportion to his wants, and the ease or the difficulty with which they can be supplied, is his progress in agriculture. Where the wants of man are supplied by the spontaneous productions of the earth, as in parts of Africa, or in the South Sea Islands; or where the inhabitants expect no food from the earth, as among the Esquimaux, or Somoiedes, their agriculture is unknown. It is only where exertion is necessary to procure food from the earth, that wants abound; that wealth is increased; and that agriculture becomes a science, and assumes its proper place as the basis and precursor of civilization, society and order. All history proves that such is the fact. The creation of wealth belongs to agriculture. Food must be had, and the value of every other article depends directly or remotely on the amount of food it will procure. The skill of the mechanic may improve; the enterprise of the merchant may exchange; but the origin belongs to the earth, and the cost and the profit is alike determined by the result of agriculture.

Science has within a few years done much in aid of agriculture; not that many positive discoveries have in the first place been made by the sciences, of which the agriculturist has availed himself; but the cause of certain results before known to the farmer, have been revealed by chemical or other researches, and thus the means of more certainty and in many more cases of producing the same results has been obtained. On this is based the improved system of agriculture. Where the earths are not in due proportion, it is impossible to make or keep the soil in a productive state. The nature of the earths is now inquired into, and their balance maintained by a rotation of crops, or the application of such matters as shall prevent exhaustion, or restore fertility to such as have been improperly treated. The capability of the earth in affording food, when properly tilled, is but imperfectly understood. Now and then instances occur in which either by skill or accident these powers are developed to the surprise of all; but what is done in one case may be done in others; and when agriculture is what it should be, when the tillage of the soil, and the application of proper manures shall be better understood, the results that now astonish will become common, and while the labor shall be diminished the product will be vastly increased.

(To be continued.)

ITEMS IN DOMESTIC ECONOMY.

To preserve fresh meat, killed early in winter, through cold weather, bury it in snow—the best way is to place alternate layers of meat and snow in a tub or barrel, and keep it in a cool place. The meat should be a little frozen first. Several days warm weather will not affect it; and if kept in an ice house, it may be not only preserved through winter, but during the following spring.

Hams cannot be kept with ease or certainty unless the flat bone, near the centre of the inner side which joins on the other bones of the ham by a ball and socket, be first carefully removed. Where this has been neglected, although every other care has been taken, failures and loss has followed.

Oats are more beneficial to horses if ground; and hay, if chopped fine.

FLORICULTURE.

THE PROPERTIES OF FLOWERS.

The advancement of floriculture has always been an object of the first importance with us. We have taken more pains with it than with any other branch of horticulture or gardening, because it would be followed with advantage by a larger class, and by persons in all grades of society. The Horticultural Journal has paid great attention to the properties of flowers, with a view of teaching the amateur what is necessary to render him a successful exhibiter, and confirming the more experienced, but perhaps wavering, professional gardener in some fixed principles. It is desirable that all persons should be united upon the value of fancy flowers, and, of course, upon the standard of perfection by which such value shall be estimated. The Metropolitan Society has done more towards fixing this standard than all the Horticultural and Floral Societies put together. The rules laid down by that society have been followed, or professed to be followed, by almost every establishment, deserving the name of Floral or Horticultural, in the kingdom, and it has been of great service to the science. The properties of flowers were, at one time, valued by no set rules of propriety, by no consistent attribute of beauty. The whims and fancies of particular individuals pronounced particular points estimable, without considering whether such points increased the splendor of a flower; whereas the points insisted upon by the Metropolitan Society, without a single exception, increased the beauty of a flower even to ordinary eyes. Thus it was that roundness and flatness in the bloom of a pansy were said to be the standard of perfection; place side by side a pansy of the old shape, and one nearly approaching the circle, unbroken through the petals, overlapping each other and tolerably flat, the most unpractised eye will see the richness of one compared with the other, and though there are none quite round or quite flat, there are many which approach both, and they are the more valuable in proportion to their near approach. Again, the properties of the dahlia are equally well defined, the nearer the shape approaches two-thirds of a ball the better. Everybody can understand this definition of the property of a dahlia. It is true, that to become this form, the petals must be broad, round ended, short, and imbricate well, free from notch, plenty of them, and the centre not over bloomed; but these are details. If the flower be two-thirds of a ball, the detail is sure to be good, for if the petals be narrow or pointed, or long, the flower cannot be well formed. A tulip has been equally as well defined as to property, and very fortunately, for the flowers which were bearing high prizes were perverting the taste of the growers; and it will take some years to correct it. Nevertheless, the rule laid down by the Metropolitan Society cannot be mistaken. The desired form, when expanded, is from one-third to one-half of a hollow ball, forming, as a matter of course, a perfectly round shallow cup; for, as the beauty of a tulip is in the inside, no other form will so well display it. The tulip must, however, possess one quality without which it will be now set down as valueless. The white or the yellow must be of one uniform shade or tint, without stain, to the very centre. In this case, as in the other, the most ordinary observer, who may know nothing about tulips, shall, nevertheless, in a moment decide that the clear round flower is more beautiful than one that is stained or not round. Upon this principle should the value of all such productions be estimated. We do not mean that every body should be able to appreciate all the points of a good flower; but that the leading ones, especially the form, should be that most likely to please the world. The auricula is a flower equally requiring a proper estimation of properties, and equally indebted to the Metropolitan Society for published rules by which to regulate them. The chief point here again is *form*. To be quite round and quite flat, like a counter, would be perfection; but here the colors form a much more important feature than in other flowers, for the auricula will come all green like a calix, or all white and mealy, without any distinct color. It has been, therefore, necessary to state that there should be several divisions of color; the small tube in the centre should be bright yellow—the circle round this perfectly white—the next circle should be a distinct color, lilac, violet, purple, blue, brown, or dark approaching to black, and very unbroken—and the outer circle of all green, grey, or white; and in proportion as all these form distinct circles, and the individual pips are flat, &c. does the value of the flower increase. There is another property estimated in London and its vicinity more than in the country. The Metropolitan Society consider it a leading property that the auricula should form a bold truss of seven pips or flowers at the least; in the country they do not require more than five. Thus many flowers will do for the country that would not do in the metropolis.

In roses, novelty seems to have been the leading point, and many growers have discovered novelty where nobody else could; but there are properties as essential to a good rose, as to any other flower, novelty forming one of them. A rose should be strongly perfumed—the petals should be thick, round, and plentiful; the color bright, and the flower double; the more of these properties possessed by a rose, the better it is. Hundreds, however, are in cultivation so nearly resembling each other, so nearly approaching to single, so weak in their perfume, and so straggling in their growth, as to make every amateur who has purchased largely repent truly that he has been governed by fine names, instead of fine qualities. Geraniums have come in for their share of attention as to properties. The majority of them have petals so narrow, that, as there are but five, they divide and form an irregular star; they ought, like the heart's-ease, to be wide enough to lap over each other, and form a whole and nearly circular flower, rather campanulated than otherwise. These ought to come in trusses, comprising at least six or eight blooms each, and forming good close heads. Bright colors, novel pencilling, and deep dark spots on the upper petals, are in great esteem; but the best at present, for form and style of growth, is Dennis's Perfection, though the color is deficient. Others asserted to be *as well formed* and *better colored*, are said to have been raised and coming out, if not out already, and indeed we have observed several bright and good flowers very closely approach it, but we confess we have not seen any fully up to the point; and though, as we have said before, the coloring is deficient, we have not seen any one so complete in form of flowers, beauty of truss, and general style of growth. The principal object we have in view here is to show that, in the estimate of properties by the Metropolitan Society of Florists, regard is had to those points which please everybody; that in fact, taken in a general way, an ordinary flower placed by the side of a flower approaching the standard of perfection laid down, shall appear inferior to ordinary observers—that the properties estimated as valuable to the connoisseur shall enlist among its admirers all persons of taste, whether florists or not; and when we resume this subject to go into details, we shall be able also to show, that there is a good reason, to be made apparent to common observers, for every point esteemed by the society as essential to a good flower. In tulip growers we have observed more whimsical notions than among any other class of florists. But such is the advantage, of setting even the experienced cultivator upon a right course, with regard to the properties of flowers, that there are sorts which bore a great price now hardly cared for, and others which bore no price at all gradually becoming favorites. The uncertainty of the bloom will always render the possession of a bed of flowers a source of anxious pleasure, because there are varieties usually stained at the bottom, and therefore worthless, but which sometimes come very clean and fine, and they are then grand beyond description. Nine times out of ten a *Siam* will beat a *Louis*, but the tenth time the *Louis* may come without its usual stain at the bottom, and then it is a sight worth travelling miles for. But Louis has never won at the Metropolitan Society's shows, and we doubt if it ever will, because, if one does happen to come clear, which is not twice in a century, we might as well persuade a grower to cut off his own head as to cut his bloom to exhibit. *Pompe funebre*, a valuable or rather a *high-priced* flower, is certainly a worse flower than Polyphemus, in every stage, from blight to perfection, and as a single flower in competition it will not create a moment's doubt. The Metropolitan Society's rules would enable a man, who never saw flowers, to judge which was the best, and there is no small difficulty, when old cultivators are selected for judges, to keep them from giving the prizes to dear flowers instead of those of good properties. These, however, are difficulties easily got over, and we conclude for the present by congratulating the general cultivator of flowers upon the great advantages derived from coming to a general understanding upon what are esteemed the real properties of flowers.—*London Horticultural Journal.*

LILIES.

In a number of last year's *Annales des Jardiniers Amateurs*, a description is given of two varieties of the lily genus, which may prove interesting to some of our horticultural friends. One of them is the *lilium lancifolium punctatum*, a variety of the *L. Broussarti*. It is described as about six feet high, with leaves about six to eight inches long: the flowers exceedingly firm and large; each of the six petals six or seven inches long; the color of a snow white with spots of a beautiful rose color for a short space dashed over it; the surplus part of the lower end of each petal is of a most lovely snow white, and terminates in a point in the thorns, which are alternate and large; in the other, there the summits are a little longer and are turned in a spiral; the appearance of each flower, to the number of six or seven (and many more when the plant is very strong) presents a vast and superb corolla of white, in the centre of which is placed, enchased in a circle of swan's down, a large and magnificent green star, whose rays divide a sort of

milky way tinged with rose; the stamens are long and well divided, and the anthers are transverse, long, and well defined; their orange tint, mixed with purple, adds much to the magnificence of the flower. The other sort is the *L. lancifolium album vel Candidum*, another variety of the *lilium Broussarti*, is not so high, and is altogether of a snow white; both varieties have a strong odor of vanilla: both were brought from Japan in 1824, by the celebrated Dutch horticulturist, M. Van Siebold. They were cultivated at Gand, from whence they were distributed to the chief establishments in Flanders. They flourished last year, for the first time, at Paris, at two establishments. One, that of M. Rey, of Kogel, and the other belonging to MM. Celo. The two plants are declared in the French work to be still rare, and most likely to become a decided ornament to pleasure grounds and ornamental gardens, as being equal to any thing that can be seen in June or July. These lilies are multiplied by off-sets and from seed, provided they give any in their new climate, as they do in Japan. This genus is become so rich in numbers and varieties during the last ten years, that it ought to be easy to enrich it still more by means of artificial impregnations. The two varieties alluded to above are particularly well adapted for this experiment, as their anthers seem made for it. The account recommends the precaution of not putting out plants of these kinds, unless an individual of each has been kept safely in the conservatory. The price at which they must be purchased for some years warrants this care, as not only may the plants be taken off by severe weather, but they may be attacked by insects and destroyed. The writer of the notice declares that he is not aware if the propagation of these lilies by offsets is abundant or not. It might be possible to propagate them also, by slips of leaves with an end to them, and by choosing the time most favorable to the experiment. Two or three failures should not discourage the horticulturist; yet in this instance a great difficulty presents itself, inasmuch as these lilies do not, like all the woody tribes, present eyes in the axil of the leaf, and whenever this is found to be the case, the most expert grafters are at fault.

The French writer mentions that he had seen at the end of May, in the open air, the *lilium longiflorum* of less height than the *lilium Candidum*, yet with flowers equally dazzling for their whiteness, and of double dimensions, and of a most sweet odor. This plant is for sale at Rey's (of Kogel) establishment.

There is a third variety of the *lilium Broussarti*, described with purple flowers, but which had not appeared when the account was written. It was doubtful whether it was the *lilium lancifolium rubrum* or the *lilium lancifolium speciosum*. It was also in the above gardens, and described as of great beauty.—*Lon. Hort. Jour.*

PRESERVATION OF DAHLIAS.

The winter of 1837-8 was so severe, that many persons lost their dahlias. The frost penetrated into cellars, orangeries, and even caves. The usual mode of preserving them was totally ineffectual, for a great number of roots were found frozen hard. However, we have learnt a mode which is practised in France, and is found to succeed perfectly. A dry spot is chosen out in the garden or grounds, and a pit is dug there five or six feet in width and four feet deep. The length depends on the quantity of roots which are to be placed there. When the pit is three feet deep, it is narrowed, three or four inches at each side, in order to obtain a ledge or resting place, for a purpose to be mentioned hereafter. The bulbs are then well wiped after the stalk is cut off in the usual way, leaving three or four inches, to which a number is attached in wood or lead. The bulbs are arranged side by side, the head upwards* in the pit. They are then covered with old boards, resting on the ledge spoken of above. If boards are not at hand, any old pieces of wood can be made to serve and prevent the earth passing through. The earth is then thrown back into the pit and well pressed down. If exceedingly severe frost is expected, leaves, litter, or grass can be thrown over all. By this proceeding the dahlias are sure to be safe. It sometimes happens, that the stalks to which the thickets are attached, continue to live. We have seen some this year in bud as large as candles, which succeeded perfectly.—*London Horticultural Journal.*

CARE OF FARMING TOOLS.

A topic not yet sufficiently enforced on the attention of farmers, is the wasteful negligence evinced in the exposure of agricultural implements to the injuries of the seasons. The sled curling and cracking by the side of the wall in summer, and the cart half buried in snow and seasoning in the winter storms, are symptoms of waste and extravagance which ripen into a consumption, to be hastened to premature termination by the visits of the sheriffs. The whole secret of wealth consists in economy, and the prudent care of those small rills which without great vigilance, are slipping through the chinks of the woven purse; and it may be considered quite as safe to predict that none of these slovenly gentlemen will be prosperous, as to write in the style of the calender soothsayers, through pages of the month of January, "expect snow about these days." The price of the time lost when it is most valuable, in putting the exposed articles in proper repair, not speaking of the cost of the materials and the interruption of business, would defray the expenses of erecting ten such cheap sheds as would cover them from the storms, protect them from decay, and keep them ready for immediate use.—*National Ægis.*

(For the New England Farmer.)

The Baron de Humboldt in his "Political Essay on the Kingdom of New Spain," mentions that it would be of great importance to Europe to procure the kind of potato which is cultivated on the plain of Santa Fe, and at Quito. He says that he has seen them of a spherical form of more than three decimetres (from twelve to thirteen inches) in diameter, and of a much better taste than any on the European continent. Comparing them with English potatoes, he observes, that the Bagota potatoes contain less water, and are very farinaceous and of an extremely agreeable taste.

The plain of Santa Fe is computed at 8190 feet of elevation. A late writer gives 8615 feet for the city of Bagota; and Malte-Brun says that Quito is 1480 toises (or 9331 feet) above the ocean. The climate consequently is very cool. Humboldt mentions the potato among the plants which are cultivated on the highest and coldest part of the Andes, and Mexican Cordilleras.

Do you, Mr Editor, or any of your correspondents, know anything about the Bogota potatoes? Or do you know any one who can be applied to to introduce them? SOLANUM.

* This we venture to affirm is exactly wrong, for by reversing it every inclination to moisture drains out of the hollow stalk and prevents a common occurrence—the rolling of the crowns, which prevents their breaking.—*Editor.*

Massachusetts Horticultural Society.

Saturday, Jan. 26, 1839.

EXHIBITION OF FRUITS.

Joseph S. Cabot, Esq. of Salem, exhibited the following pears: Chaumontel Coxe No. 46, Beurre Diel, Coffin's Vergoulouse, Wilkinson and Lewis; the committee make the following remarks: the Wilkinson pear, so excellent in its season, had been kept so far beyond its usual period of maturity, as to have become tasteless.

Coffin's Vergoulouse was obtained by the late Mr Samuel Hyde of Newton, from the garden of Mrs Coffin, who had received it from the nursery of Messrs William Prince & Sons of Flushing, under the name of "Vergoulouse." When the tree came into fruit, it was found not to correspond with the description of that variety; and Mr Hyde on introducing it into his nursery, gave it the name by which it is now cultivated. It is a good fruit in its season, which is October and November, although not decidedly first rate.

The Lewis pear has not, we think, received that consideration from amateurs which it merits; we have heard it spoken of in no very flattering terms. This has arisen no doubt, from its having been seen in a bad season, or when not at its proper period of maturity. The tree is of vigorous growth and very productive, and so far as our experience goes it is a first rate table fruit from November till March, and is worthy of a place in any collection however select.

Benj. V. French, Esq. exhibited the beautiful Pomme d' Api, Wellington and Monstrous Pippin apples.

For the Committee,
ROBERT MANNING.

RAILROADS AND FARMERS.

The Wilmington, N. C. Herald states that Mr Lewis Cogdell, who lives at Wayne, seven miles from the track of the Wilmington and Raleigh railroad, delivered in the Wilmington market, at 2 o'clock, on the 11th December last, 64 Hogs, all of which were killed and dressed *after sunset on the day previous;* also several bales of cotton *which were packed on the morning of the 11th.* The distance travelled by wagon and by railroad was 94 miles.

Such despatch is worthy of public notice and proclaim the advantages of the railroad system more loudly than a thousand theories and fine spun arguments.

The best way to keep winter apples, is to barrel them. This perfectly excludes rats and mice, and preserves them in a great measure from the air.

The whiteness of ivory handle knives may be restored by rubbing them with fine sand paper or emery.

NEW ENGLAND FARMER,
AND HORTICULTURAL REGISTER.

BOSTON, WEDNESDAY, FEBRUARY 6, 1839.

A CARD.

The Commissioner of Agricultural Survey has imported for gratuitous distribution among the farmers in the Legislature, some wheat from Portugal, called "Trigo Trimestre," and said to be an early and valuable variety. The earliest and best was ordered.

He has likewise imported for the same purpose, a quantity of German Teasle seed. The German Teasles are much superior to those raised among us; and bring usually one hundred per cent. more in the market.

He hopes to receive before the adjournment of the Legislature some of the best wheats grown in Sicily and Italy, for which he sent some time since. He has likewise obtained for distribution two bushels of ears of what he deems by much the finest variety of Indian corn, that he has ever seen. It ripened perfectly the two cold years; and yielded the last year at the rate of seventyfive bushels to the acre. He will show a sample of this corn at the next agricultural meeting on Thursday evening.

He has likewise the pleasure to acknowledge the receipt of several other varieties of Indian corn valuable for their abundant yield and early maturity; and samples of Ohio corn, which ripened well the last year in our latitude.

He is indebted to some agricultural friends on Connecticut river, always enterprising in this good cause, for samples of the growth of corn, oats, and wheat, from the luxuriant intervales of that favored land, which would do honor to the prairies of Illinois or the bottom lands of the Ohio.

He acknowledges with much pleasure the receipt of beautiful specimens of the cultivated grasses in his vicinity, from Levi Bartlett, Esq. of Warner, N. H. which show what intelligent husbandry can do even in a State which our chivalrous friends of the south consider as under the curse of producing nothing but granite and ice, of iron frosts, and snow clad summits. Massachusetts, Maine, New Hampshire and Vermont, if they will but be true to themselves, will find no occasion to envy the cotton and rice fields of the south with the curse of slave labor brooding over them; nor the luxuriance of the Western alluvions with the accompaniments of bilious fevers and intermittents.

He has received likewise from Dracut, an ingenious and improved cultivator, to be moved by hand, for garden use; an excellent drill barrow from Sheffield; and a corn planter and seed sower from the enterprising and intelligent husbandman, C. Bement of Albany.

He has likewise obtained from Hampshire county, a steam boiler for cooking food for swine and cattle, of an excellent construction, with an ingenious arrangement for preventing any accidents from the excess of steam. This apparatus is in operation on the farm of T. Plunkett, Esq. Pittsfield, whose farm is one of the best and one of the best managed in Massachusetts. The whole is of reasonable expense; and is there found to work well—performing its business in good time and at a small expense of fuel.

These will be found at the office of the Agricultural Commissioner, at No. 52 North Market street, over the New England Farmer Office, where he will be happy to receive the visits of his friends the farmers, during the sitting of the Legislature, and of others interested in agricultural improvements. HENRY COLMAN,

Feb. 6, 1839. *Com. of Ag'l. Survey.*

AGRICULTURAL MEETINGS.

The second agricultural meeting was holden at the State House on Wednesday evening of the last week and was well attended. The Hon. Isaac C. Bates of the Council in the chair.

Several gentlemen were kind enough to give their opinions and the results of their experience in the cultivation of wheat; and their views in respect to legislative encouragement in the form of bounty. Dr Charles Jackson, the learned geologist of Maine, and who has been employed by Massachusetts to examine the condition and character of the lands in Maine, which belong to this State, gave a great deal of highly interesting and valuable information respecting that territory; and showed its extraordinary capacities for the production of wheat. He descanted likewise fully on the use and importance of lime in the soil; and spoke of the influence of electricity in the process of vegetation. Rev. Mr Perry of Bradford, one of the most intelligent and philosophical observers of nature, stated several facts in regard to the cultivation of wheat in his vicinity; and followed out some of the suggestions of Dr Jackson in regard to the connexion of electricity with vegetation, a subject as yet almost wholly in the dark. Rev. Allen Putnam of Danvers, an intelligent and close observer as well as a practical farmer, entered upon the discussion mainly in opposition to a legislative bounty upon wheat, from the inequality of its operation. The Hon. Mr Thaxter, and Mr Hosmer of the Council, and Col. Adams of Newbury, formerly of the Senate, and other gentlemen, rendered the meeting highly interesting by their remarks.

We should have been happy to have given an extended report of the remarks of the several gentlemen, but are desirous of using the information elicited in another form.

It was unanimously resolved to hold another meeting on Thursday of this week at the same place and hour, when a general attendance of farmers and others interested in agriculture is hoped for and solicited. The subjects proposed for conversation are Indian Corn and other grain crops. H. C.

MR EDITOR,—

Without much experience in matters belonging to a farm, I have provided myself with cards, curry combs and brushes for my cattle, supposing them necessary, feeling that cattle should be *kept clean*—thus far my object has been accomplished and my cattle appear nearly as clean, as in June—now sir, I should not trouble you had I not lately discovered that I *may have* been at an unnecessary expense in providing, and subjected to a loss of time in using the articles above mentioned.

I have around me practical farmers, men of sound minds, judicious, merciful, and other good qualities, and those from whom I should obtain knowledge; and sir, I find that some of them use but very little, *and others not at all*—the card, comb, &c. Learning these facts, and feeling that a merciful man *should* be merciful to his beasts, I am led to enquire on this subject,—I have doubts—Is it not *cruel* to be often scratching and rubbing? Is not the thick coat often seen on cattle in the winter necessary to shield them from the cold? Do, Mr Editor, let us have light on this subject. ☞

In reply to the above communication, we think our friend's conscience on the score of humanity may be quite relieved, unless his curry-combs are too sharp; and sometimes they are so sharp and laid on so severely as to bring blood. This is cruel. The animal is provided, by a kind and beneficent guardian, with a thicker coat in winter than in summer; but with all his currying, unless he uses tweezers or pincers, he cannot start this coat until the spring comes and nature itself indicates the proper season for taking off their flannels. The insensible perspiration and excretions passing off by the pores of the skin amounts almost to as much as is disposed of by other evacuations. It is important therefore that these outlets should be kept open; but this can be done only in proportion as the skin is kept clean. If we examine the habits of animals, even the most filthy, we never see them lying down in their own filth and ordure. It is cruel therefore, by tying them up, to compel them to do it any farther than is unavoidable. There can be no doubt that all animals are healthier and happier for being kept in a cleanly condition; and that a good combing and currying and cleaning, unless it is done in a severe and inhuman manner, is a real luxury to them.

As to the circumstance of our correspondent's having many neighbors, whose habits in this matter are any thing but careful and cleanly, we can find him a great many perfect specimens of this kind all over the State. The pretence of suffering their cattle to remain in this condition is only an apology for their own indolence and neglect. We can find without difficulty many considerble stocks of the human species, both calves and old and worn out cattle, where the same delicious system of leaving the hair uncombed and the skin unwashed has been pursued from day to day and year to year. Many of them seem never to have been washed since the time of their birth, and little prospect of ever being washed again until they are laid out. No comb ever passes through their heads except one formed by their fingers, and then only occasionally in pursuit of some fugitives from justice; and very likely they would get cold, if the fresh surface of the skin could by some thorough process be brought suddenly to an exposure to the external air. But we cannot say we have any strong preferences for this mode of training children; and we have not a doubt, if the bills of health and mortality could be examined with reference to this point, it would appear that a great proportion of diseases prevail in such locations; and an extraordinary mortality results from the foul skins, the foul air, and the foul habits in which such people live. H. C.

LIVE FENCES.

Since our last, in reply to the inquiries of Mr Osborn, in relation to Hedges or Live Fences, we have had the pleasure of a visit and a written communication from Dr Shurtleff, whose farm is in Chelsea, and whose success has been eminent in the cultivation of live fences. He has made a large extent of this kind of fence. He prefers the American maple thorn, (*Cratægus cordata*) to any other. He says he has never had a plant bored or hurt by worms.—"Some plants which he set out last Spring grew from 2 to 3 per cent; and his loss under unfavorable circumstances was not one per cent." The plants may be obtained of Joshua Pierce, Linnean Hill, near Washington city, for five dollars per 1000; and a deviation from this price is made where 10,000 are taken. Dr Shurtleff states that his hedge did not cost him 50 cts. per rod. We presume in this estimate he made no account of the expense of protecting fences. His hedge required eight years to make an impregnable fence. He says it can be done in half the time. A full account of his operations may be found in the N. E. Farmer, vol. ix. pages 209, 228, 267, 273. Mr Kenrick of Newton, advertises the Cockspur Thorn and the Buck-Thorn as for sale. We are not informed whether he has also the American Maple Thorn. His advertisement before escaped our notice. We presume he has also the American Maple Thorn among his multiplied varieties. H. C.

BRIGHTON MARKET.—Monday, Feb. 4, 1839.

Reported for the New England Farmer.

At Market, 275 Beef Cattle and 1100 Sheep.

Prices.—*Beef Cattle.*—Last week's prices were fully sustained, and we quote to correspond; First quality, $7 75 a $8 00. Second quality, $7 00 a $7 50. Third quality, $5 75 a $6 50.

Sheep.—Sales quick; lots were taken at $3 00, $3 50, $3 88, $4 17, $4 50, $5 00, $6 00 and $7 00.

Swine—None at market and not in demand.

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietors of the New England Farmer, Brighton, Mass. in a shaded Northerly exposure, week ending February 3.

January, 1839.	7 A.M.	12, M.	5, P.M.	Wind.
Monday, 28	12	22	18	N. W.
Tuesday, 29	18	23	24	N. W.
Wednesday, 30	12	30	21	S. E.
Thursday, 31	12	21	20	N. W.
Friday, 1	10	26	18	N.
Saturday, 2	12	24	18	N. W.
Sunday, 3	13	26	26	S. W.

A BOAR FOR SALE.

The Subscribers are authorized to sell a boar, half *Berkshire;* he is large of his age, being twenty months old. Price $75. Apply to

Feb. 6. ep JOSEPH BRECK & CO.

SCIONS OF FRUIT TREES.

Scions of a great variety of Apples, Pears, Plums, and Cherries, from bearing Trees, which have been proved at the Pomological Garden, Salem, Mass., for sale by the subscriber. ROBERT MANNING.

Feb. 6. 6p

A FARMER WANTED.

The subscriber is desirous of making a permanent arrangement with a young man who has a small family and is thoroughly acquainted with practical farming, to take charge of a first rate farm in the Connecticut Valley, only a few miles from Hartford. Said farm is also within one and a half miles of one of the most thriving manufacturing villages in the State, and a ready and good market may there be found for the produce of the farm.

To a young man of industrious habits and good principles and who is competent to take the direction of a large farm, such an opportunity rarely offers itself; as the owner will not sell it, and an arrangement for a term of years might be relied upon.

Any young man who is possessed of the above qualifications may meet with encouragement by calling upon the subscriber at No. 12 Long Wharf, or by addressing a line through the Post Office. ISAAC C. ANDREWS.

Jan. 23, 1839.

AMERICAN SILK GROWER'S GUIDE.

On the art of raising the mulberry and silk and the system of successive crops in each season; second edition; enlarged and improved by William Kenrick. Just published and for sale by Joseph Breck & Co., at the Seed Store and Agricultural Warehouse, Nos. 51 and 52 North Market Street.

Jan. 9, 1839

TO BE LET.

The subscriber offers to lease for the term of three, five or seven years, his dwelling house and gardens in South Salem, either with, or without any portion of the adjoining farm lands. The gardens, &c. contain about six acres, in a high state of cultivation, well stocked with flowers, fruit and ornamental trees; two green houses, filled with the choicest green house plants, and grapes in full bearing; a forcing wall, with seed and tool rooms, a convenient gardener's lodge, and a large ice house; sufficient may be sold annually from the garden to pay the whole rent. The dwelling house is large and convenient, commanding a fine view of the sea, and is within three fourths of a mile from the centre of the city of Salem. The above offers a desirable situation either for a gentleman's residence, or for a public garden or boarding house.

Also, to let for three, five or seven years, the farm house and barns, which are large and commodious, with the whole or part of the farm, consisting of over two hundred acres of land of the best quality, with a large orchard of grafted fruit—it is abundantly supplied with sea manure, and located near four market towns. The whole estate has a full supply of pure water. Apply to the subscriber on the premises.

Jan. 23, 1839. E. HERSY DERBY.

Tulips, Ranunculuses, Anemones, Auriculas, Carnations, Picotees, Pinks, and Geraniums.

H. GROOM, of Walworth, near London, England, by appointment Florist to Her Majesty Queen Victoria, begs respectfully to call the attention of his friends and the admirers of flowers in America generally, to his extensive collection of the above flowers, which from his having been very successful in their cultivation this season he can offer at very moderate prices. He would particularly recommend to those persons about commencing the growth of the Tulip (which in England is becoming very fashionable) the under collections in beds, as it is by far the cheapest mode of purchasing them.

Tulips arranged in beds with their names.

First Class.

A bed of 30 rows containing 210 bulbs including several of the newest varieties, - - - - - - - - £15
A bed of 45 rows, - - - - - - - - - £21
A bed of 60 rows, - - - - - - - - 25 guineas

Second Class.

A bed of 30 rows including many fine sorts, - £10
A bed of 45 rows do - - - - £14
A bed of 60 rows do - - - - £17 10s

Tulips not arranged.

100 Superfine sorts with their names from £7 7s to £13
Superfine mixtures, from - - - 7s 6d to 21s

Ranunculuses.

100 Superfine sorts, with their names from £3 3s to £5 5s
Superfine mixtures, from - - - 5s to 21s per 100

Anemones.

100 Superfine sorts with their names, - - £3 10s
Superfine double mixtures from 10s 6d to 21s per 100

Auriculas.

25 Superfine sorts with their names, - - £3 13s 6d

Catalogues with the prices of the other articles may be had on application.

Orders received by JOSEPH BRECK & CO.
Nov. 1. eow.

TULIPS, RANUNCULUSES, PINKS AND VIOLAS.

S. WALKER, of *Roxbury*, offers for sale in beds, or in such quantities as may suit purchasers, from 1 to 2500 bulbs of *choice Tulips*. The bulbs were imported from Holland, France and England, to which yearly additions have and will continue to be made of the newest and choicest varieties. Persons wishing to purchase a bed of superb *Tulips*, will do well to *make a selection for themselves when the bulbs are in bloom*, (about the 1st of June.) The prices will conform to the *quality* of the flowers selected, but in no case will the charge *exceed* the *lowest* market prices, in the country where the bulbs were raised, and cheaper than the like *quality* can be imported.

Tulips in beds of from 30 to 100 rows, containing from 210 to 700 bulbs, or by the dozen, 100 or 1000.

Viola grandiflora—Pansy, or Heartsease. Upwards of 2000 superb varieties will be exhibited and offered for sale, when the Tulips are in bloom.

Ranunculuses—fine mixtures, at from $2 to $5 per 100.

Pinks—fine named varieties, from 25 cents to $1 each.

For particulars apply to S. WALKER, or to JOSEPH BRECK & CO. eow

SHAKERS' SEEDS AND HERBS.

WIGHT & GIBSON, No. 44 Hanover Street, under the American House, (opposite Elm Street,) are appointed by the United Society at Harvard, Mass. as their agents for the sale of *all* kinds of *Garden Seeds*, raised and put up with directions for culture, by Jonathan Chandler.

Prices, the same as when sold by the society or their travelling agent.

Herbs, Roots, Extracts, &c. for sale as above.

January 30, 1839. 4mis

FRUIT AND ORNAMENTAL TREES, MULBERRIES &c

Nursery of William Kenrick.

The Catalogue of Fruit and Ornamental Trees for 1839 is now ready, and will be sent to all who apply. It comprises a most extensive selection of the superior varieties of Pears, Apples, Plums, Quinces, Gooseberries, Raspberries, Currants, Strawberries, Grape Vines, &c. The stock of Cherries and of Peaches now ready is particularly large. Also, Ornamental Trees, Shrubs, Roses, Honeysuckles, Pæonies, Dahlias and other Herbaceous Flowering Plants.

10,000 Cockspur or Newcastle Thorns.

10,000 Buckthorns.

Morus Multicaulis, and other Mulberries; the trees genuine and fine, at prices fair, and varying with the size, and the quantity which may be desired.

Fruit and all other trees, when so ordered, will be securely packed for safe transportation to distant places, and orders promptly executed, on application to the subscriber.

WILLIAM KENRICK.

Nonantum Hill, Newton, near Boston.

January 30, 1839.

SILK WORMS' EGGS.

Preserved with much care, producing sulphur colored cocoons; the worm from this kind of egg wound their cocoons the last season in twenty eight days. Specimens of the cocoons may be seen at the Agricultural Warehouse, if desired. Apply to John Sullivan.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		From	To
Ashes, Pearl, per 100 lbs.		7 22	7 75
Pot, " " "		6 00	6 25
Beans, white, Foreign,	bushel	1 35	1 75
" " Domestic,	"	2 00	2 25
Beef, mess,	barrel	17 00	17 50
No. 1.	"	14 50	15 00
prime,	"	12 00	12 50
Beeswax, (American)	pound	28	34
Cheese, new milk,	"	8	10
Feathers, northern, geese,	"		
southern, geese,	"	37	46
Flax, (American)	"	9	12
Fish, Cod, Grand Bank,	quintal	3 87	4 00
Haddock,	"	2 25	2 30
Mackerel, No. 1,	barrel	13 00	13 12
Flour, Genesee, cash,	"	9 12	9 25
Baltimore, Howard street,	"	8 87	
Richmond canal,	"	8 62	8 75
Alexandria,	"	8 50	8 62
Rye,	"		5 50
Meal, Indian, in bbls.	"	4 00	4 25
Grain: Corn, northern yellow,	bushel	1 00	1 02
southern flat, yellow,	"	95	96
white,	"	93	94
Rye, northern,	"	1 17	1 20
Barley,	"	90	95
Oats, northern, (prime)	"	56	58
Hay, best English, per ton of 2000 lbs.		18 00	20 00
Eastern screwed,		15 00	16 50
Hops, 1st quality,	pound	15	16
2d quality,	"	13	14
Lard, Boston, 1st sort,	"		
southern, 1st sort,	"		
Leather, Philadelphia city tannage,	"	29	30
do. country do.	"	25	27
Baltimore city tannage,	"	26	28
do. dry hides,	"	24	25
New York red, light,	"	23	25
Boston, do. slaughter,	"	23	24
Boston dry hides,	"	21	23
Lime, best sort,	cask	95	1 00
Oil, Sperm, Spring and Summer,	gallon		
Winter,	"	1 08	1 10
Whale, refined.	"	50	55
Plaster Paris, per ton of 2200 lbs.	cask	2 87	3 6
Pork, extra clear,	barrel	25 00	26 00
clear,	"	24 00	24 50
Mess,	"	23 00	24 00
Seeds: Herd's Grass,	bushel	2 63	2 75
Red Top, southern,	"	80	1 00
northern,	"		
Hemp,	"	2 62	3 00
Flax,	"	1 75	1 87
Red Clover, northern,	pound		
Southern Clover,	"		
Soap, American, No. 1,	"	6	7
" No. 2,	"	5	6
Tallow, tried,	"	12	12
Teazles, 1st sort,	pr M.	3 00	3 50
Wool, prime, or Saxony Fleeces,	pound	57	62
American, full blood, washed,	"	52	55
do. 3-4ths do.	"	47	50
do. 1-2 do.	"	42	45
do. 1-4 and common,	"	37	40
Northern pulled. Pulled superfine,	"	52	55
No. 1,	"	47	50
No. 2,	"	30	35
No. 3,	"		

PROVISION MARKET.

RETAIL PRICES.

Hams, northern,	pound	15	16
southern and western,	"	12	13
Pork, whole hogs,	"	9	10
Poultry, per lb.,	"	12	15
Butter, tub,	"	20	25
lump,	"	25	28
Eggs,	dozen	37	40
Potatoes, new,	barrel	1 50	2 00
Apples,	"	1 75	2 00
Cider,	"	2 00	2 25

BONE MANURE.

The subscriber desires to inform his friends and the public that he has been in the Bone business more than ten years, and has spent much time and money to ascertain how bones may be converted to the best use, and is fully satisfied that they form the most powerful stimulant that can be applied to the earth as a manure. He offers for sale ground bone at a low price, and is ready to receive orders to any amount, which will be promptly attended to.

Orders may be left at my manufactory, near Tremont road, in Roxbury, or at the New England Agricultural Warehouse and Seed Store, No. 52 North Market Street, Boston.

Sept. 20. NAHUM WARD.

MISCELLANEOUS.

Some wise-acre, we shall not say who, for that might be quite too personal for us, insisted that Massachusetts never could be worked up into poetry, without spoiling the web. The subjoined from a friend to whose kindness we have been several times obliged and should be right glad to go much deeper into this kind of debt, has sent us the subjoined, with which we are happy to store our poetic bower; and which show that, maugre all previous assertions and contradictions, the work is done; and Massachusetts is completely dovetailed into very good rhyme and sentiment.

For the New England Farmer.

Massachusetts!—can it be,
Hath no poet named thy name,
Holy land of liberty,
Highest on the roll of fame?

Had I a pen with power to turn,
"The thoughts that breathe, to words that burn,"
Thou, Massachusetts, should not be
Neglected by sweet poesy.

Oh! I would raise a thrilling strain
O'er mountain, valley, hill and plain,
Till every eye should turn to see
Whence the loud sounding minstrelsy.

Then would I point to fame's bright scroll
And bid them read the glorious roll
Of Massachusetts' heroes,—men
Who fought and freely died, to gain
A spot where man might still be free,
A resting place for Liberty!

And I would bid Religion tell,
With earnest voice and beaming eye,
How Massachusetts martyrs fell,
Content in such a cause to die;
That we, their children, ne'er should be
The victims of stern bigotry;
That each might worship without strife,
In his own way, the God of life.

High themes are these, and worthy too
Of all the noblest bard can do,
Worthy the power,—which now is not—
The magic power of Scotland's Scott.

Were I a favored son of song,
And did such power to me belong,
I would not rest—nor night, nor day—
Till the dark stain were washed away;
Till Massachusetts' themes should dwell
On every tongue in this wide land;
Till Massachusetts' praise should swell
From Brunswick's line to Texas' strand.

Talk of her "cold and barren soil,
Which ill rewards the ploughman's toil"—
I would not give her coldest hill
For all the warmth of southern plains;
The right her "barren soil" to till
For all the southern's slave-made gains.
Her "cold and barren soil" yields *health*,
Content and *freedom*—if not wealth.

No! Massachusetts, let me bide
Within thy borders still;
I love thy verdant mountain side,
Its crystal stream, and sparkling rill,
Its bracing air, its beauteous woods;—
And oh! I love the swelling floods
Which ocean bears, with joyous roar,
In tribute to thy rock bound shore.

I love to tread the Pilgrim land,
To muse where first that holy band,
On Plymouth-rock, or Plymouth-sand,
In freedom worshipped God.

I love to walk on Bunker's height,
Where *right* the battle fought with *might*,
And broke oppression's rod.

I love to think that on thy breast,
Dear Massachusetts, I shall rest,
That where my father's grave is made,
There shall his son in peace be laid.

THE LADY OF THE FIRST GOVERNOR OF VERMONT.—Thomas Chittenden, the first Governor of Vermont, who was a plain farmer alike remarkable for strong native powers of mind, and the republican simplicity with which he conducted everything in his public duties and in his domestic establishment, was once visited by a party of travelling fashionables from one of our cities. When the hour of dinner arrived, Mrs Chittenden, to the astonishment of her lady guests, went out and blew a tin horn for the workmen, who soon arrived: when, to the still greater surprise, and even horror, of these fair cits, the whole company—governor, his lady, guests, workmen and all—were invited to sit down together to the substantial meal which had been provided for the occasion. After dinner was over the ladies were left by themselves, and one of the guests thought she would gently take Mrs Chittenden to task for this monstrous violation of the rules of city gentility to which she had been, as she thought, so uncourteously made a victim.

"You do not *generally* sit down to the same table with your workmen, I suppose, Mrs Chittenden?" she commenced.

"Why," replied the governor's lady, whose quick wit instantly appreciated the drift of the other, "I am almost ashamed to say we generally do, but I intend soon to amend in this particular. I was telling the governor this very morning, that it was an absolute shame that the workmen, who did all the hard labor, should fare no better than we, who sit so much of the time in the house, earning little or nothing; and I am determined hereafter to set two tables—the first and best for the workmen, and the last and poorest for the governor and myself."—*Green Mountain Emporium.*

RUM COLOR.—In one of the New England parishes, since the commencement of the reform in temperance, at a meeting held for the transaction of business, a proposition was introduced and carried for painting the meeting house. Of course it was necessary to decide what color it should be patnied. One proposed one color, and another, another, and reasons were offered for each. At last says one; Mr Moderater, I move that it be painted rum color, and I will give my reasons.—There is Captain ———, who sits near you, has had his face painted *Rum* color these fifteen years, and it grows *brighter and brighter every year.*

FOR SALE, A FIRST RATE FARM,

Well situated on the road leading from the Theological Seminary in Andover, to the old Boston road; lately owned by Peter F. Shed, and well known as the David Blunt Farm, containing 70 acres, more or less. There is about 20 acres of good Woodland within sight of the house. The remainder of the farm is in good condition, and is generally considered, by those acquainted with it, to be "a garden spot." There are from 300 to 500 apple trees on the place, independently of other fruit trees of great value. The farm is well walled and watered, the buildings in first rate order, and there are upon it three wells of excellent, soft water. It is well situated for a gentleman wishing for a residence in the country, being retired, and yet in the immediate vicinity of the public Schools and the Theological Seminary;—or for the farmer, who wishes to raise vegetables for market, the land being all good, and markets near. It lies about half a mile from the Ballard Vale Factory, one mile from the Rail Road depot, and nine miles from Lowell. There are upon the place about ten cords of manure.

The conditions of sale will be liberal, the owner being obliged on account of ill health, to go South.—For particulars, inquire of the subscriber, on the premises.

ANDREW B. STIMPSON.

Andover, January 15, 1839. 4w

FARM FOR SALE.

A Farm situated in the southwesterly part of Townsend, on the road leading from Townsend west village to Worcester. Said farm contains 110 acres of land divided into mowing and pasturing, and a large share of wood and timber; a one story house, with two front rooms, kitchen, buttery, and two bed rooms well finished; parlor papered; wood house; well, under cover, forty feet barn, and shed, a large sheep house, fifteen by thirty feet, a large cooper shop, and another small house well finished, on the lower floor; a good aqueduct which comes into the barn yard, and a good orchard.

The subscriber will sell a part or all, and give possession this fall or winter, or next spring. Those who wish to buy, will do well to call on the subscriber, who lives on the premises, and look for themselves. ASA H. ADAMS.

Nov. 29, 1838.

MULBERRY TREES.

WM. PRINCE & SONS will make sales of trees and cuttings of the genuine Chinese Morus Multicaulis, Morus Expansa, Alpine, Broussa, Canton and other varieties, deliverable to the purchasers at such period in the Spring, as is convenient to them, and will enter into contracts accordingly.

Prices and terms for the trees and cuttings will be forwarded to all who may apply for them by mail, as well as prices of Silk Worms' Eggs, Mulberry Seeds, &c. The Multicaulis trees are remarkably vigorous, and as we first imported the genuine tree, purchasers are sure of obtainmg the genuine kind. It is from this cause and from the great attention paid by them, that the trees that they have sold, have given universal satisfaction.

Dec. 20, 1838. 2m Flushing, near New York.

FARM IN BROOKLINE.

For sale a farm situated in Brookline, about four miles from Boston, containing forty acres of first rate Tillage Land, and thirty acres of Woodland and pasture—with a good House in complete repair; Barn, Chaise-house, Corn-barn, Shed, &c.

The Farm will be sold low, together with the Stock, Hay, Tools, &c. if applied for soon, at No. 30, North Market St. Boston, or Roxbury Street, near Boston line.

Dec. 26, 1838. JOHN HUNT.

NOTICE.

A person now in the Nursery business, on a limited scale, who has peculiar advantages for its extension, not possessed by any other individual in this country, wishes to connect himself with some person who can furnish a small capital, sufficient to make the business both pleasant and profitable. Inquire at the office of the N. E. Farmer.

Nov. 21, 1838.

WANTED.

In the Seed Garden, connected with the New England Agricultural Warehouse, a first rate farmer; one who has some knowledge of the management of hot beds would be preferred. Inquire at the N. E. Farmer Office, Nos. 51 & 52 North Market St. JOSEPH BRECK & CO.

THE NEW ENGLAND FARMER

Is published every Wednesday Evening, at $3 per annum payable at the end of the year—but those who pay within sixty days from the time of subscribing are entitled to a deduction of 50 cents.

TUTTLE, DENNETT AND CHISHOLM, PRINTERS,
17 SCHOOL STREET...BOSTON